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EXAMINER	
SHEIKH, HUMERA N	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/699,987	CHO, WING-KEE PHILIP	
	Examiner	Art Unit	
	Humera N. Sheikh	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *42-84,89,90 and 93-120* is/are pending in the application.

4a) Of the above claim(s) *42-71,97,98 and 110-115* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *72-84,89,90,93-96,99-109 and 116-120* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/03/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Application

Receipt of the Response to Restriction/Election requirement and Applicant's Arguments/Remarks, all filed 05/07/07 is acknowledged.

Applicant's election with traverse of Group II (claims 72-120) and Applicant's election with traverse of species (c), drawn to a method of treating nasal and non-nasal symptoms of perennial or seasonal allergic rhinitis, in the reply filed on 05/07/07 is acknowledged. The traversal is on the ground(s) that "The Office has mischaracterized the claims of Groups I and II" and "The inventions of Groups I and II and the various species of method claims are sufficiently related that a proper search of any of the claims would, of necessity, require a search of others". This is not found persuasive because, as stated in the Restriction requirement, the inventions of Groups I and II are distinct, each from the other. The Group I invention recites a composition that requires the use of two active ingredients – desloratadine and pseudoephedrine whereas the Group II invention recites a composition that requires only one active ingredient – desloratadine. The two compositions are also different in their respective structures – (*i.e.*, layered versus non-layered), as well as their rates of release (*i.e.*, sustained release and/or immediate release). Applicant argues, "Group II has 'comprising' claim language and thus may read on compositions that have one or more layers and are formulated as an immediate or sustained or controlled release formulation." The Examiner agrees to the extent that the "comprising" claim language of Group II permits additional components asides from those instantly recited. However, the Group II claims do not necessarily require or recite the additional active agent – pseudoephedrine, nor do the Group II claims necessarily require the use of additional layers, nor does the Group II

invention necessarily require a sustained or controlled release of drug, as does the Group I invention. Thus, the inventions are entirely distinct in their forms and composition, and would have different issues with regards to patentability and enablement. The different groups would require completely different searches, as evidenced by their distinct classification, and there is no expectation that the searches would be coextensive in scope. With regards to the election of species, each of the different methods instantly claimed are capable of supporting a separate patent within the art and thus are distinct, each from the other. Hence, a search of the various different groups and species claimed would, in fact, constitute an undue burden on the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Claims 42-71, 97, 98 and 110-115 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 05/07/07.

Claims 42-84, 89-90 and 93-120 are pending in this action. Claims 42, 44, 46, 48-51, 73, 74, 79, 80, 89, 90, 93-96, 100 and 104-109 have been amended. Claims 85-88, 91 and 92 have been cancelled. Claims 42-71, 97, 98 and 110-115 have been withdrawn (non-elected invention). Claims 72-84, 89-90, 93-96, 99-109 and 116-120 are rejected.

* * * * *

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined

application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 72-84, 89-90, 93-96, 99-109 and 116-120 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-41 of U.S. Patent No. 6,709,676 (hereafter '676 Patent) in view of Harris *et al.* (U.S. Patent No. 6,423,721) (hereafter '721 Patent). The instant invention and the '676 Patent, although not identical, claim similar subject matter.

The instant invention is drawn to a solid composition comprising an anti-allergic effective amount of desloratadine and a desloratadine-protective amount of at least one pharmaceutically acceptable antioxidant. The instant composition claims that at least 80% of desloratadine dissolves in a 0.1N HCL solution at 37°C in about 45 minutes (see, for instance, claim 73). The instant composition also recites that the total amount of desloratadine degradation products is less than or equal to about 2% (claim 74).

The '676 Patent claims a bilayer solid composition comprising a first layer of an anti-allergic effective amount of desloratadine and a desloratadine-protective amount of at least one pharmaceutically acceptable antioxidant and a second layer comprising an effective amount of

pseudoephedrine or a pharmaceutically acceptable salt thereof and (optionally) a desloratadine-protective amount of at least one pharmaceutically acceptable antioxidant (claim 1 of '676). The '676 Patent also claims, as does the instant application, that at least about 80% of desloratadine dissolves in a 0.1N HCL solution at 37°C in about 45 minutes (see, for instance, claim 3 of '676). The '676 Patent also recites that the total amount of desloratadine degradation products is less than or equal to about 2% (see claim 4 of '676).

The only distinction observed between the instant composition and that of the '676 Patent is that the instant composition (1) does not recite a second active ingredient, the second ingredient being pseudoephedrine; (2) does not recite a layered composition (such as the bi-layered composition of '676) and (3) does not recite a sustained or controlled release formulation.

The secondary '721 Harris reference is being relied upon for the teaching that it is obvious and well known to one of ordinary skill in the art to formulate compositions that comprise a combination of antihistamines, such as desloratadine, with decongestants, such as pseudoephedrine that can be administered in oral sustained release, layered dosage formulations for the treatment of allergic conditions (*i.e.*, sinusitis/rhinitis) (see '721 – column 1, lines 1-20); (col. 2, lines 5-62); (col. 4, lines 54-63). The '721 Patent recognizes and teaches decongestants, such as psedoephedrine to be suitable and effective additional active agents for use in their invention.

Therefore, it would have been obvious to one or ordinary skill in the art to include any additional active agent, particularly decongestants (*i.e.*, pseudoephedrine) with antihistamines (*i.e.*, desloratadine) in a sustained release, (bi-) layered formulation. The expected result would

be a controlled release formulation that offers multiple beneficial effects, such as the effective reduction of congestion for a user in need thereof.

* * * * *

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 72, 74, 76, 77, 79, 82, 83, 89, 99, 102-104, 117 and 118 are rejected under 35 U.S.C. 102(b) as being anticipated by Aberg *et al.* (U.S. Pat. No. 5,731,319).

Aberg *et al.* ('319) disclose methods and compositions for the treatment of allergic rhinitis comprising descarboethoxyloratadine – "DCL" (desloratadine) that avoids adverse side effects associated with other non-sedating antihistamines (see Abstract); (col. 3, line 21 – col. 4, line 21). The descarboethoxyloratadine daily dose range is from about 0.1 mg to less than about 10 mg, administered orally in single or divided doses (col. 8, lines 30-41). (This range encompasses and meets Applicant's range of "about 2.5 mg" and "about 5 mg" desloratadine). Suitable antioxidants (*i.e.*, organic acids) are disclosed at column 9, lines 12-30. The compositions can also include starches, sugars, microcrystalline cellulose, diluents, granulating

agents, lubricants, binders, disintegrating agents and the like (col. 9, lines 31-39). Solid oral dosage forms such as tablets are preferred (col. 9, line 40 – col. 10, line 13).

* * * * *

Claims 72, 74, 76-79, 82-84, 89, 99, 100, 102-104 and 116-118 are rejected under 35 U.S.C. 102(e) as being anticipated by Harris *et al.* (U.S. Patent No. 6,114,346).

Harris *et al.* ('346) disclose methods of treating sleep disorders in a human afflicted with upper airway passage allergic inflammation and/or congestion associated with allergic rhinitis, including seasonal allergic rhinitis or perennial allergic rhinitis by administering a therapeutically effective amount of desloratadine, alone or in combination with other active agents such as a decongestant such as pseudoephedrine (see Abstract); (col. 1, lines 5-67); (col. 3, line 40 – col. 4, line 9).

The therapeutically effective amount of desloratadine disclosed is about 1 mg/day to about 20 mg/day (col. 2, lines 22-28); (claim 2). (This range encompasses and meets Applicant's range of "about 2.5 mg" and "about 5 mg" desloratadine).

Solid form preparations include powders, tablets, capsules and the like (col. 2, lines 65-66). Preferably desloratadine is administered orally (col. 2, lines 44-45).

The compositions may include pharmaceutically acceptable acids (antioxidants), such as tartaric acid, glucuronic and citric acids (col. 2, lines 46-64).

Harris et al. anticipate the instant claims.

* * * * *

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 72-84, 89-90, 99-100, 102-105 and 116-118 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris *et al.* (U.S. Patent No. 6,114,346).

Harris *et al.* ('346), as delineated above, teach methods of treating sleep disorders in a human afflicted with upper airway passage allergic inflammation and/or congestion associated with allergic rhinitis, including seasonal allergic rhinitis or perennial allergic rhinitis by administering a therapeutically effective amount of desloratadine, alone or in combination with other active agents such as a decongestant such as pseudoephedrine (see Abstract); (col. 1, lines 5-67); (col. 3, line 40 – col. 4, line 9).

The therapeutically effective amount of desloratadine disclosed is about 1 mg/day to about 20 mg/day (col. 2, lines 22-28); (claim 2). (This range encompasses and meets Applicant's range of "about 2.5 mg" and "about 5 mg" desloratadine).

Solid form preparations include powders, tablets, capsules and the like (col. 2, lines 65-66). Preferably desloratadine is administered orally (col. 2, lines 44-45).

The compositions may include pharmaceutically acceptable acids (antioxidants), such as tartaric acid, glucuronic and citric acids (col. 2, lines 46-64).

The Examples at column 4 demonstrate various formulations of the invention. For instance, Example 1 at col. 4, lines 11-16 demonstrates a tablet containing 5 mg desloratadine and 240 mg pseudoephedrine. Similarly, Example 3 demonstrates a tablet containing 2.5 mg desloratadine and 120 mg pseudoephedrine.

Harris *et al.* teach antioxidants (pharmaceutical acids) such as citric and glucaronic acid and tartaric acid (col. 2, lines 46-64). While Harris *et al.* do not explicitly teach that the "total amount of desloratadine degradation products is less than or equal to 2% by weight", it is the position of the Examiner that Harris *et al.* nonetheless, recognizes and teaches the use of the same acids as claimed by Applicant, which would also be fully effective in protecting desloratadine from the formation of degradation products; thus the total amount of degradation products of the prior art formulation would be minimal. Moreover, Applicant has not established criticality of the claimed amounts of degradation products, nor have any unexpected results been observed through the claimed amounts.

Harris *et al.* do not teach the claimed amounts of antioxidants (i.e., citric acid). However, the Examiner points out that generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. "[W]here the general conditions of a claim are disclosed in the

prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller,* 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

With regards to the claimed dissolution of desloratadine, being "at least 80% desloratadine dissolved in a 0.1N HCL solution at 37°C in about 45 minutes", Harris *et al* do not teach this dissolution rate. However, the determination of a suitable or effective rate of dissolution is within the level of one of ordinary skill in the art, obtained through routine or manipulative experimentation to obtain optimal results. Absent a showing to the contrary, the claimed dissolution rate, would be obvious to one of ordinary skill in the art given the explicit teachings of Harris *et al.* Furthermore, no unexpected or superior results have been demonstrated through Applicant's claimed desloratadine dissolution rate.

Thus, given the teachings of Harris *et al.*, the instant invention, when taken as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

* * * * *

Claims 93-96, 101, 106-109 and 119-120 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris *et al.* (U.S. Pat. No. 6,114,346) as applied to claims 72-84, 89-90, 99-100, 102-105 and 116-118 above, in view of Harris *et al.* (U.S. Pat. No. 6,423,721) and further in view of Hellberg *et al.* (U.S. Pat. No. 6,372,802).

Harris *et al.* ('346), as discussed above, teach methods of treating sleep disorders in a human afflicted with upper airway passage allergic inflammation and/or congestion associated with allergic rhinitis, including seasonal allergic rhinitis or perennial allergic rhinitis by

administering a therapeutically effective amount of desloratadine, alone or in combination with other active agents such as a decongestant such as pseudoephedrine (see Abstract); (col. 1, lines 5-67); (col. 3, line 40 – col. 4, line 9).

Harris *et al.* do not teach inclusion of microcrystalline cellulose, corn starch, stearic acid and dye.

Harris *et al.* ('721) teach compositions and methods for treating sinusitis, otitis media and other related disorders comprising oral administration of a therapeutically effective amount of an antihistamine, such as loratadine or its metabolic derivative – desloratadine (see Abstract); (col. 1, lines 1-67). The composition comprises diluents and disintegrants, such as *microcrystalline cellulose* (col. 5, lines 20-43); binders such as starches derived from *corn rice and corn sweeteners* (col. 4, lines 5-9); (col. 5, lines 44-59); lubricants such as *stearic acid* (col. 5, lines 60-65) and coloring agents such as *dyes* (col. 6, lines 16-22). The disintegrant (microcrystalline cellulose) is effective for helping to break up the composition and release medicaments. Binders (corn starch) are employed to add cohesive strength to the composition. Lubricants (stearic acid) are added to enable the tablet, granules etc. to release from the mold or die by reducing the friction or wear. Coloring agents (dyes) provide coloration to the composition/dosage form (see col. 5, line 20 – col. 6, line 23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disintegrants, binders, lubricants and dyes of '721 within the compositions of '346. One of ordinary skill in the art would do so because '721 explicitly teaches the use of the same disintegrants (i.e., microcrystalline cellulose), binders (i.e., corn

starch); lubricants (i.e., stearic acid) and coloring agents (i.e., dyes) as the Applicant and teach that these components are suitable in their composition for obtaining their respected, desired properties and effects (disintegrating, binding, lubricating and coloring effects). The expected result would be an improved dosage form and composition for the beneficial treatment of allergic disorders.

Harris *et al.* ('346) and ('721) do not teach edetate disodium.

Hellberg *et al.* ('802) teach methods and compositions for treating allergic diseases such as allergic rhinitis or sinusitis comprising disulfide derivatives (Abstract); (col. 3, lines 40-54). Conventional excipients that are added to the composition are chelating agents or stabilizers. Edetate disodium is disclosed as the suitable chelating agent or stabilizer (col. 3, lines 1-23). Active ingredients disclosed include antihistamines, such as desloratadine (col. 3, lines 24-39). Administration forms comprise oral dosage forms such as tablets (col. 2, lines 43-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate conventional chelating agents or stabilizing agents, such as edentate disodium as taught by Hellberg *et al.* within the formulations of Harris *et al.* ('346). One of ordinary skill in the art would do so because Hellberg *et al.* explicitly teach the use of conventional excipients such as chelating or stabilizing agent and particularly teach edetate disodium as an effective and suitable chelating/stabilizing agent, useful for protecting against any degradation products. The expected result would be an enhanced dosage form and composition for combating allergic disorders and diseases.

Conclusion

- No claims are allowed at this time.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Humera N. Sheikh whose telephone number is (571) 272-0604. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday during regular business hours. (Wednesdays - Telework).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Humera N. Sheikh

Primary Examiner

Art Unit 1615

July 27, 2007

HUMERA N SHEIKH
PRIMARY EXAMINER

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